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ARTICLE I.

HEALTH—ITS VALUE, CONDITIONS, PRESERVATION AND RESTORATION. NO. I.

HEALTH consists in the vigorous and normal, or constitutional, action of all the physical organs and functions. Life consists in precisely the same action. In proportion to the vigor of this action, is the amount of both health and life; but, in proportion as these physical functions are enfeebled or diseased, is health enfeebled and life diminished. But, in proportion as we *improve* our health, do we thereby increase life itself. Viewed in any and every aspect, HEALTH IS LIFE, AND LIFE IS HEALTH. By as much, therefore, as life is valuable, should health be preserved if good, and restored if feeble.

Health is, moreover, the great seasoner or relish of all our blessings; nor is it possible to enjoy the latter except *by means of*, and in *proportion to* the former. Without health, what can we be, what can we do, what can we enjoy? for, other things being equal, our capabilities of accomplishing and enjoying are proportioned to our health, and diminished by disease. If we possessed all the wealth, and all the honors, and all the blessings mortals can possess, we could enjoy them only in proportion as we had health, and their value would be diminished just in proportion to its decline. Suppose we were sick, and our appetite thereby destroyed, the richest food and most delicious fruits, instead of rendering us happy, would nauseate us. How different if we were healthy! How a good appetite, the product of health, would enjoy them! Well might the glutted Alderman offer a ragged boy a guinea for his appetite for breakfast. The rich invalid is

poor, but he who is healthy is rich: because his fund of life, and his capacities for enjoyment, are proportionably great.

Reader, if brought to the brink of the grave—your last hour come—what would you give—what that you possessed would you *not* give—for another year of life and its pleasures? Astor's thirty millions would be cheap. To impair health in obtaining any amount of property or of earthly good, is a dear exchange.

Since, then, to preserve or regain health is to preserve, prolong, or regain life itself, and to impair the former is to *destroy* the latter and its pleasures, as well as hasten death, and since the value of life so infinitely surpasses that of all other earthly blessings, what consummate folly to trifle with health on *any* account! Then, how much more foolish and even wicked virtually *to throw it away for nothing*, in our too eager pursuit of those trifling objects—the acquisition of wealth, honors, &c.—which mainly engross mankind! What! sacrifice LIFE upon the altar of Mammon! For, be it remembered, that no human being can impair his health at any period of his life, without proportionally shortening his days—without being brought to a strict account at the close of life, and compelled to end it as much sooner than he otherwise would, as he has injured his health during his whole lifetime.

An illustration. A sum of money is left you, in bank, the interest of which is sufficient, if economically used, to support you. But you spend foolishly, and draw on the principal. This diminishes your income, and you draw oftener and larger drafts. Now, since the faster you draw on the principal the sooner it becomes exhausted, and since every draft must be reckoned in that final settlement which must take place the sooner by every draft drawn, so every thing which injures your health—every cold or rheumatic affection induced; every instance of over-eating, over-lifting, over-working, every thing injurious to health—must be *cashed* in the final reckoning between you and your banker, Death, who will never suspend your life till you have drawn out its last item. He will then summon you to a final reckoning, show that you have drawn out your entire fund, and send you to your grave.

Ho! youth, ho! *all*, let me urge upon you the *infinite* importance of health, and the proportionate importance of preserving and augmenting it! This effectually done, millions of money bestowed on each reader could not equally benefit you, because of the incomparably greater value of health than money. Let your own experience testify. Which of you has not, some time, somehow, induced debility or pain in one portion of your system or another, which will cripple you for life?

A foolish ambition breaks down the constitutions of an incalculable number of our youth. Unwilling to be outdone, they will work at the top of their strength as long as they can stand, perhaps over-heat themselves, or, in a single day or week, bring on some complaint which debilitates them

for life and carries them to a premature grave! An ambitious youth, wishing to show his employers what a great day's work he *could* do, shoveled till he lamed his side, so that, for *fifteen years* he has been a partial invalid, cannot do many kinds of work, nor more than half the work he formerly did, besides working in almost perpetual pain. That single day's work did him more injury than any amount of money could ever do him good—gave him more pain than money could give him pleasure—weakening all his enjoyments, and augmenting all his sufferings *for life*, which it will shorten many years. Is this a rare case? What reader of thirty has not impaired his health for life by similar imprudences or exposures?

Nor is this the half. Whatever enfeebles the health, enfeebles and vitiates the mind by weakening and disordering the brain. So perfectly are body and brain inter-related, that all the conditions of either re-act upon the other. Whatever augments the health strengthens the body, and thereby invigorates both the brain and mind; but whatever impairs the health, thereby necessarily weakens both the body and the brain, and, of course, the mind; because, be it universally remembered, that the brain is the organ of mind—that, therefore, the several states of the two are perfectly reciprocated, and that both are enfeebled and invigorated together. Hence, since disease always and necessarily enfeebles both body and brain, it of course weakens the mind; but as an increase of health augments the energy of the brain, it enhances the clearness and power of the mind.

Reader, what is the true value of *mind?* How much could you afford to give for double the amount you now possess? Neither money nor any thing else can measure its value. Our minds are *ourselves*—our great instrumentality of enjoyment and suffering. To improve our minds is the most effectual mode possible of augmenting all the capabilities, all the pleasures, all the virtues of this life, and ripening for another, and hence should be the paramount *business* of our whole lives. But to do this, we *must have health;* to augment which, is to increase the activity and energy of the brain, and thereby the power of the mind, the retentiveness of our memory, the correctness of our judgment, and the purity of our feeling and desires, as well as to diminish our vices and blemishes. Good health is indispensable to self-improvement.

A single qualification. A man may have good health along with a small or sluggish brain, from not having disciplined that brain, and hence have less mind than one who has less health, but more mental activity. Or, as the mind is improved by discipline, a man's health may diminish, while this mental discipline strengthens both brain and mind faster than his physical debility weakens them, but the qualification already mentioned, *other things being equal*, covers this exception. Our doctrine pre-supposes that no other causes operate to counteract the *natural* consequences of

enfeebled health. Take men *just as they are* when enfeebled by disease, and our doctrine is true.

One other inferior, yet, in this dollar-and-cent age, more *practical* motive for preserving the health, is the *pecuniary* advantage it yields, and loss consequent on sickness. Health allows you to be always "on hand" for business, from which sickness takes you, and compels you to entrust its management to others—always disastrous—or cuts off your wages, if a laborer; creates large doctors' and nurses', and a host of other incidental bills; and occasions a great variety of pecuniary losses. So, measurably, if any member of your family is sick—especially a wife. How many readers, if they and their families had always been well, would have been rich, who are now poor? Indeed, merely as a matter of pecuniary economy, no stroke of policy can equal that of *keeping well*. Considered whichever way you will, to *preserve the health*, if it be good, and if poor, *to regain and then preserve*, should be the *paramount* business of life—should take precedence over all others, and be our *first* great concern.

Come, then, readers, one and all, go with me into an investigation of the laws and conditions of life and health, and then into their *practice*. *Let us make it our permanent* BUSINESS to preserve and augment our health. Let us allow ourselves to do *nothing* that shall impair it. Let us *make and take time* to do *every* thing in our power to invigorate it.

"Oh but," says one, "though I would most gladly join you, yet my business compels me to work too hard, and too many hours. Every day's work hurts me, but I *must* work or starve, and beggar my family." Stop. You only *think* so, but are in error. You can live as comfortably as you now do on one-half you now spend, and thus need earn only half as much as now, and yet be just as well off, and save your health too. And even if you could not, as a means of doing the very work you think you must do, *preserve your health*—and the more so, the poorer you are; for then the need is proportionally greater. Go on, as now, till you break down your constitution, and *then* what will your family do for support, which they will probably need ten years hence as much as now? Go on to break down your health, and you will soon be in your grave. *Then* what will your family do? I repeat it; considered in any aspect and *all* aspects, to PRESERVE THE HEALTH is the only true policy.

"But, it is so difficult," says another. No such thing. It is easy, while *abusing* it is alone difficult. The latter fills you with pain, the former, with pleasure. The latter is all contrary to Nature, the former in harmony with her, and therefore delightful. Nor need you study medical books; nor keep dosing yourself with bitter drugs. These things will only injure. But to preserve or regain health is perfectly simple and easy. Though improved health is worth more than millions, yet it need cost you nothing but what is pleasurable. I repeat. To preserve or to regain the

health is perfectly *simple and easy*. It requires only to *know how*. We are perpetually doing, unconsciously, what injures, and could much more easily do what would benefit us instead, provided we only *knew how*. This "*know how*," it will be the object of this series of Articles to set forth. We shall take up, one after another, the great functions of life—digestion, circulation, respiration, perspiration, exercise &c, and show how to preserve and restore their vigorous action, and this is life and health. We shall also apply our subject to the preservation of the health of *children*—a most important subject—and show mothers how they can avoid the sickness and premature death of their offspring. We shall show how to obviate dyspeptic affections, liver complaints, heart affections, consumptive tendencies, and especially nervous affections—these great destroyers of the peace of the great majority of our families. In short, we shall point out the *laws and conditions of life and health*—their preservation, restoration, and prolongation by following which our readers will be more essentially benefited than by all other means whatsoever.

ARTICLE II.

THE PHRENOLOGICAL DEVELOPMENTS AND CHARACTER OF

WALTER FOLGER, ESQ.

With an Engraving.

WALTER FOLGER is a truly remarkable man. In point of natural capability he has few superiors, yet his native modesty, joined with great natural worth, have prevented his making that bluster, and employing that gammon, so essential, in these days, to notoriety.

He has been selected for phrenological analysis in this number, partly because of his extraordinary capabilities, but mainly because his TEMPERAMENT, taken in conjunction with his character, furnishes a most happy illustration of that great doctrine which we are attempting, in so many different forms and connections, to explain and enforce; namely, that of different organizations as accompanying corresponding kinds of mentality. We have not yet advanced sufficiently far to have fully defined or expounded this doctrine, yet can do so to even better advantage after we have given a few practical samples than before.

In view of this great doctrine—the resemblance of the outer to the inner man—contrast the general outline of Folger's physiognomy with that of Joseph C. Neal. The latter is finely moulded, finished, delicate, pleasant, perfect; the former more strongly marked, yet less exquisitely formed, and evinces more *power*, yet less taste and refinement. Our doctrine of coincidence between shape and character would ascribe to Neal that literary taste, exalted imagination, mental fervor, and perfection for

which he is remarkable, yet would poorly qualify him for purely *scientific* pursuits, which require great *power* of intellect with less brilliancy of imagination. Science requires deep thought, abstract study, prolonged and concentrated investigation, and a power of scanning facts and grasping and applying first principles; while literary talents require intensity of feeling, a fervid imagination, brilliancy of wit, fluency and beauty of diction, refined taste, and a promiscuous knowledge of matters and things in general. Neal possesses the latter, Folger the former, &c. Now precisely this difference obtains in regard to their looks, and general contour. Neal is slim and small—indices of mental activity and fervor—while Folger is large and broad-built, which indicates strength and solidity of mind as well as body. Neal's features are well formed if not truly handsome, and his mentality in exact conformity thereto; while the features of Folger are larger and stronger, and his whole expression is more plodding yet less fleet. With this, the general characteristics of their minds are in perfect conformity. Neal is the charming, finished writer, Folger the sound, scientific investigator. Neal is the belles lettres scholar, Folger the mathematician, astronomer, scientific mechanic and deep, original *thinker*.

This perfect accordance of their respective organization, and characters teaches a highly instructive physiognomical and physiological lesson. Those distinctly marked muscles seen in Folger's likeness evince an organization of *power*. Wherever you see them, you will find *strength of mind and character*. If such an one must live by labor, he prefers hard work and heavy lifting to light, fancy work. If he turn his attention to intellectual pursuits as such, he prefers science to literature—the study of Nature to fictitious composition, reasonings to flights of fancy, and positive knowledge to news.

In our last number we pointed out the harmony which exists between the general aspect of the outer man and his general characteristics. Applying this rule to Folger, we observe a strongly marked yet *well balanced* contour. He is equally remarkable for his sound, practical common sense and superior judgment. The opinion of no man on Nantucket has more weight with its inhabitants than his.

His perceptive faculties, as seen in the engraving, are amply developed. The whole lower portion of his forehead is massive. Hence his scientific capabilities. The outer portion of his eyebrows pass backward, toward the ears, considerably farther than the outer angle of his eyes. This indicates great calculation. His mathematical *organs* are therefore as remarkable as his astronomical *talents*, and this *union* of the two adds another *fact* to that infinite array of coincidences between development and character which puts Phrenology on a *scientific* footing. His Constructiveness is also very large, yet is not represented in the engraving.

His physiognomy will be seen to bear a strong analogy to that of Benjamin Franklin, whose mother was a Folger and related to Walter as seen in

the following phrenological and biographical account of Walter Folger, by L. N. Fowler, published in the Phrenological Almanac for 1845. One revolution performed by his clock there mentioned, requires nearly 120 *years* for its completion, and, judging from its proportionate progress thus far, it promises a degree of accuracy truly remarkable.

No. 11. LIKENESS OF WALTER FOLGER, ESQ.

The circumference of this head is 23 1-10 inches. From the *occipital spinalis* to Individuality, over Firmness. 14 1-2 inches; from the orifice of one ear to that of the other, over Firmness, 15 8-10 inches; width from Destructiveness to Destructiveness, 6 3-10 inches: orifice of the ear to Firmness, 6 1-2 inches; orifice of the ear to Individuality, 5 inches; orifice

of the ear to Philoprogenitiveness, 5 inches; orifice of the ear to Benevolence and Veneration, 6 1-2 inches. In marking his physical qualifications and mental developments in a scale from 1 to 7, they run—

Size of Brain, large.
Degree of Activity, full.
Strength of System, large.
The Excitability, large.

Domestic Propensities.

Amativeness, very large.
Philoprogenitiveness, large.
Adhesiveness, large.
Inhabitiveness, large.
Concentrativeness, full.

Animal Propensities.

Combativeness, large.
Destructiveness, large.
Alimentiveness, large.
Acquisitiveness, moderate.
Secretiveness, moderate.

Selfish Sentiments.

Cautiousness, large.
Approbativeness, large.
Self-Esteem, full.
Firmness, very large.

Moral Sentiments.

Conscientiousness, very large.
Hope, full.
Marvellousness, average.
Veneration, large.
Benevolence, very large.
Vital Temperament, very large.
Motive Temperament, large.
Mental Temperament, large.
Propelling Faculties, full.

Semi-Intellectual Sentiments.

Constructiveness, large.
Ideality, large.
Sublimity, do.
Imitation, do.
Mirthfulness, full.

Perceptive Faculties.

Individuality, very large.
Form, do.
Size, do.
Weight, large.
Color, moderate.
Order, large.
Calculation, large.
Locality, very large.
Eventuality, large.
Time, full.
Language, full.

Reflective Faculties.

Causality, large.
Comparison, very large.
Agreeableness, do.
Human Nature, large.

His head is developed in length and height, coming to a point at the root of the nose, rather than in width. Most of the faculties are large or very large; few that are medium, and but three that are below. His physical qualifications are very favorable to life, health, strength, and mental development. His vital temperament, however, having the ascendency, gives direction to the intellect in the study of the physical and exact sciences—modified by the superior faculties, gives the desire for mathematics, as applied to astronomy, to the development of principles in Mechanics most important to man.

With the above physical qualifications he should be known for great versatility of talent, for uncommon accuracy of mental performance, for ability easily to grasp complicated and comprehensive subjects, for his power to acquire knowledge, his stability of moral character, for unbounded sympathy and willingness to serve others where he can make them happy, for his respect for sacred things, and respect for superiority of law and authority, and regard for his word and moral character. He should be distinguished for his energy, force, executiveness of mind, and even severity of feeling when the occasion requires it, for his strength of appetite and desire for existence, for his attachment to friends, family and home, and for his disposition to persevere until he has accomplished the object of his desire.

His head indicates strong *biases* of mind, strong prejudices, likes and dislikes, but he is deficient in worldly tact, conservativeness in business,

desire to acquire property, or love it after obtained. Secretiveness being weak and love of truth very strong, he would speak his mind without fear or favor, and almost regardless of consequences—would be liable to make enemies by his plainness of speech. He needs more self love and capacity to appreciate himself, his thoughts and labors, when compared with others. He is too well satisfied with simply doing a thing, without making capital of what he does or knows to advance his influence or reputation; nor can he turn his knowledge into the channel of making money so well as the majority of men, because of the controlling influence of the moral and intellectual faculties giving cunning, tact, and desire to appropriate to himself. He has not great spirituality of mind nor love of fiction and the marvelous in general, yet he has rather a strong and vivid imagination. His jokes are more practical, pointed and full of meaning, than playful, mirthful and witty. He is not copious in language, his ideas are never burthened with words, but the reverse is frequently the case.

His susceptibility of mind and body to fear, danger, pain, impressibility and disease is comparatively weak—his desire to be in authority is weak; but when in authority justice will have the ascendency, let the consequences be what they may. His capacity to infer and ability to make *nice* distinctions between right and wrong are strongly indicated. His Constructiveness is farther up and forward in the head than is usual, giving it more purely the inventive and intellectual tendency. His scientific or knowing faculties are developed in a most astonishing degree, beyond any other man whose head I have ever examined—his power to apply principles to practical life, and use his knowledge advantageously, is very great.

From what follows we shall see that many of the remarkable qualities of this distinguished man are hereditary, and have been developed in every generation for five or six in succession, and that this individual possesses the mathematical, mechanical, inventive and astronomical talents, knowledge of first principles, veracity, moral courage, equal, if not in a superior degree, to Benjamin Franklin, who was a descendant of the Folger family on his mother's side.

John Folger came from England in the year 1636, from the city of Norwich, in the county of Norfolk, a widower, with his son Peter, aged 18 years. [His wife's maiden name was Meriba Gibbs—she died in England.] Hugh Peters, 'who was chaplain to Oliver Cromwell,' came from England in the same vessel with them. They settled at Martha's Vineyard, and in 1644, Peter Folger married Mary Morrel, a waiting maid who came over from England with the family of Hugh Peters. They had eight children during their residence at Martha's Vineyard. They removed to Nantucket in the year 1662, and afterward had one daughter named Abiah, who was the mother of Dr. Benj. Franklin.

Eleazer their son maried Sarah Gardner: Nathan, the son of Eleazer and Sarah, married Sarah Church: Brazilli, the son of Nathan and Sarah, married Phebe Coleman: Walter, the son of Brazilli and Phebe, married Elizabeth Starbuck, daughter of Thomas. They had eleven children, viz:

Elizabeth,	born	1758	Phebe,	born	1771.
Hepsibeth,	"	1760	*Cleona	"	1773
*Phebe,	"	1762	Aaron,	"	1776
Walter,	"	1765	Rebecca,	"	1778
*Lydia,	"	1767	Gideon,	"	1780
*Ezekiel,	"	1769			

Five of the above are now living. Those marked thus [*] died young.

The family of Walter Folger 1st, have all been remarkable for their ingenuity, possessing superior mechanical powers, both to invent or execute, as he himself also did, and this peculiarity may be considered the most prominent in their natures. Same have also distinguished themselves as mathematicians, and have became propound adepts in the science. Their knowledge reaches beyond what is usually taught in seminaries of learning—and his son Walter has trod the most intricate mazes of science, and has a comprehensive understanding of the highest principles, besides being an astronomer of the first class. The family of Walter Folger 1st, have ever been distinguished for habits of industry, temperance, and frugality, and a high regard for moral and social duties. The grandchildren of Walter Folger 1st, have generally like their parents, shown great skill in mechanics—there are but few exceptions—and in some instances have evinced peculiar powers in mathematics, and an unusual readiness to acquire general knowledge. But our attention is directed at present to Walter Folger 2d, who was born June 12th, 1765.

He says of himself: "At an early date I went into a school taught by Susan A. Folger, third wife of Jonathan Folger, senior; her maiden name was Graham. I do not remember what was taught, probably nothing more than the alphabet. In those days we were taught to call this letter A, great a—and this a, little a,—this I, long i—and z ezzard, and this &, emperzand.

"I afterward went to school, taught by Elizabeth Swain, widow of Joseph, after which to a school taught by Anna Gardner, wife of Sylvanus, after which I went to school taught by Benjamin Coffin: he was an old man;—my father had been a scholar in his school. I do not recollect what books were made use of in either of said schools—we had about that time a book called the Psalter, and one called the Primer. Before the Revolutionary War I entered the school of Elisha Macy, in which we had Dillworth's spelling book, the Old and New Testament. I never saw a dictionary when I was a scholar. I believe there was something of a grammar, called Dillworth's, that the verb '*to love*' was therein conjugated. I do not think that either of the above teachers knew any thing about grammar. In Elisha Macy's school I learned to spell all the columns in Dillworth's, to write from copperplate copies, and to read a few verses daily in the Testament, and cipher. Mr. Macy was a good teacher in common arithmetic, and learned as far as vulgar fractions.

"In the winters of 1782 and '3, I went to Elisha Macy's evening school, and learned navigation by Logarithms, gauging by Gunter, and also learned every thing he could teach me. I was well acquainted with surveying as then practiced, by the table of difference of latitude and departure, and Gunter's scale, before I went to Mr. Macy's school.

"Soon after this time, Elisha Macy, Abner Coffin and myself, began the study of Algebra, without any instructor, and continued until we were well acquainted with it, and had also got some knowledge of fluxions when we separated.

"About the time the French Revolution began, 1778, I determined to learn the French language. On inquiring what books were necessary, I was directed to get Boyer's Grammar and Dictionary. I then found what grammar was, and that I must study English and French grammar at the same time. Elisha Macy, Abner Coffin, William Coffin, Oliver C. Bartlett, my sister Phebe, and myself, met in the evening three times in the week, and studied the French language, and translated the whole of the New

Testament. I acquired much information in the arts and sciences by reading the Encyclopedia Methodique, and other French books. For many years I employed the most of my leisure time, which was taken from my hours of sleep, in studying. I must have had some knowledge of Astronomy as early as 1788. I began to make my clock that year, and set it in operation the 4th of July, 1790, and it performs well now I believe it was in 1783 that I was unwell,—confined to the house, and most of the time to my bed. My father informed me that one of his brothers had a new book which contained a method of determining the longitude by observation. I asked him to borrow the book for me, which he did, and I learned the lunar observations while lying on a sick bed. Some years afterward, I believe in 1789, I taught Capt. Joseph Chase. I believe he was one of the first, if not the very first navigator, who found his longitude by lunar observation from this country. About this time I thought our oil casks were not made in the best form. On investigating the subject by a fluxional press, I found that the diameter should be equal to the length. I directed my cooper to make my casks in that form; he made many objections; at length he consented. It was soon found that it was a profitable alteration, and was adopted, by which more than a million of dollars have been saved to this Island. I made out this question:—What proportion shall the diameter of a cask bear to its length, to hold the most oil with the least superficies?—And published the same in the Independent Chronicle, published in Boston, over a fictitious name. It remained about two months without a solution. I then sent a solution over another fictitious name, which was published January 2d, 1837. "WALTER FOLGER."

Additional proofs of his superior *natural* abilities above that of ordinary men, may be inferred from the following facts in his history. His superior knowledge of the principles of mechanics has made him the oracle of many persons of inventive minds, not only residing near him, but elsewhere, who in numerous instances, after having premised plans of machinery for various purposes of manufacture before consummating them, have applied to him for instruction, and for his opinion as to the practicability of their schemes. Knowing his ability to scan the most complicated machinery almost intuitively, and in no instance has he failed to arrive at correct conclusions. He commenced the clock spoken of above at the age of twenty-two, and completed it during his leisure hours in two years afterward, and it was put in motion July 4th, 1790, and has kept regular time according to astronomical calculations up to the present; March 12, 1844.

The plan of the whole machinery was matured and completed in his mind before he commenced it. He submitted the whole plan to his father, who was also an expert astronomer and mechanic; and he said it could not fail to operate according to the design. It is made of brass and steel. It keeps the date of the year. The sun and moon rise and set in the clock precisely in accordance with those in the heavens; it also shows the sun's place on the ecliptic. It keeps the moon's nodes around the ecliptic, taking 18 years and 225 days, is in continual motion.

The wheel that keeps the date of the year revolves around once in one hundred years, remaining still ten years, and at the expiration of each ten years it starts regularly one notch.

It is considered, by all who have become acquainted with its powers and performances, to be one of the greatest specimens of mechanical ingenuity in this country. No other clock of this kind has been heard of. It not

only requires mechanical skill, but a perfect knowledge of astronomy, to plan the machinery of such a clock, and execute the same.

He commenced the construction of his reflecting telescope in 1819, when 54 years of age, and made it entirely himself. With it, he has been able to discover spots on the planet Venus which had never been discovered by Herschel's large telescope; which shows beyond a doubt, the superiority of this telescope over that of Herschel.

His equal has not yet been found in this country for astronomical and mathematical calculations, and versatility of mechanical talent. He has been no less distinguished as a lawyer, judge, and legislator, which, if we had time, we might easily prove. A few facts on this point, will be sufficient to show how he was estimated at the time he was engaged in public affairs.

He was one year in the House of Representatives, six years in the Senate [Massachusetts Legislature,] six years Judge of the court of common pleas, four years Representative in Congress, and twenty years an attorney at law, and practiced in various parts of Massachusetts and Rhode-Island—trying causes the most responsible and difficult, against the most powerful opponents, with uncommon success. While serving in this capacity of Judge, there was not a single cause carried to a higher court, which had frequently been done before, and has since, as is generally known. In giving up the practice of the law, he was asked by J. R. Adams, Esq. of Boston, Mass., now a distinguished counselor, why he did it. His reply was, that his clients were not satisfied unless he lied for them, and that he would not do. Mr. Adams was a particular friend of Mr. Folger, and at one time consulted him about the expediency of becoming a lawyer in preference to any other profession. Mr. F. replied, that an *honest* lawyer was a very rare phenomenon. Mr. A. has by experience become fully convinced of the truth of the above remark, and having so often been disgusted with the intrigues of mankind in order to gain their point, has renounced the practice of law, and bestows his services only as a counselor. Mr. F.'s moral character has been unimpeachable through life. To sum up our remarks on this most distinguished man, for his natural abilities, his versatilities of talent, sound, safe, and comprehensive mind, we would add, that he never went to a teacher who understood grammar—never learned a trade, (and yet could do *all kinds* of mechanical work,)—nor ever studied law with a lawyer—nor went to any institution of learning above that where the alphabet, spelling, reading in the Bible, arithmetic, and surveying were taught, and he never sought one of the many offices which he held. He is now about eighty years of age.

ARTICLE III.

THE HYDRARCHOS, OR GREAT SEA SERPENT; WITH AN ENGRAVING.

The Mosaic account of the Creation does not embody all that may be learned concerning it. Earth herself is her own historian, having written her own auto-biography in legible characters upon both her surface and her depths. These ancient records modern Geology is gradually deciphering, and wonderful indeed are her revelations.

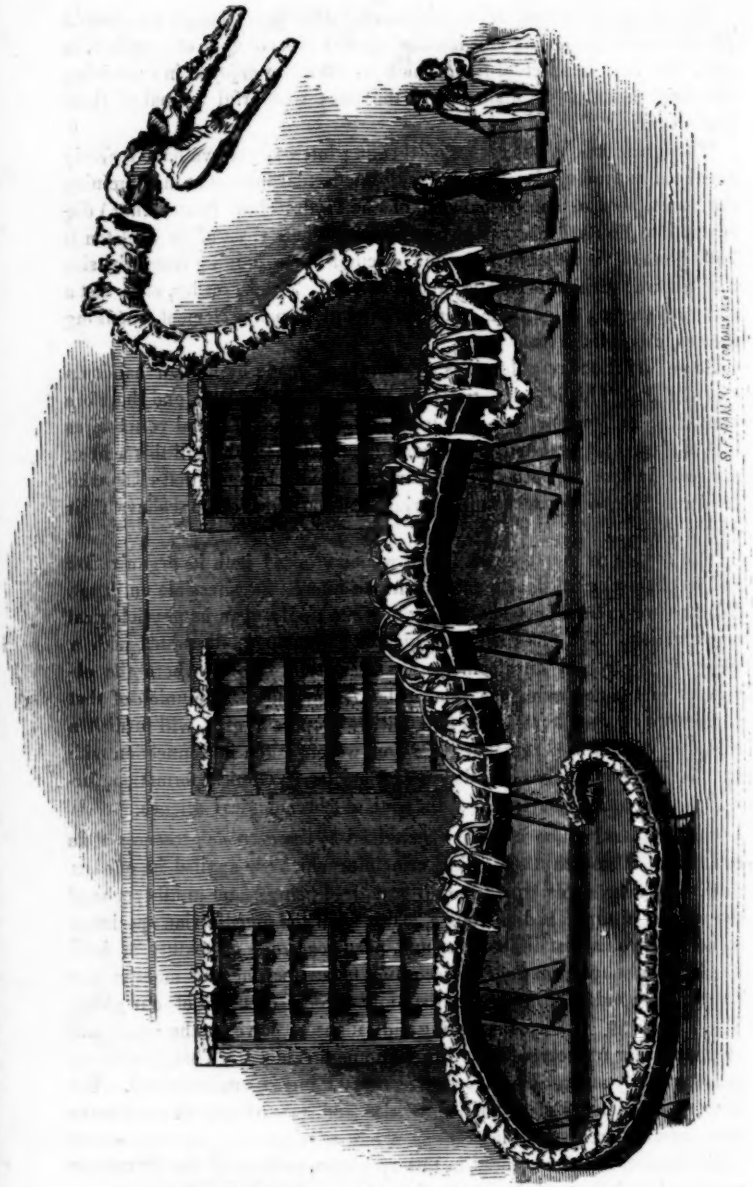
We do not write merely to recommend Geology—though we deem it pre-eminently interesting and instructive—but to serve up to our readers, in part, that rich intellectual *feast* which we ourselves enjoyed in examining the fossil remains of undoubtedly the most wonderful animal of those ancient times.

Though accustomed to scenes of thrilling interest, yet we have scarcely ever been as thoroughly *electrified* with intellectual interest as in examining the bones, head of course included, of the Hydrarchos, (water king,) discovered in South Alabama by Dr. Koch. The weight of its skeleton is 7500 pounds; length 114 feet; and circumference, judging from the size and natural position of its ribs, about 25 feet. Think, reader, of so vast a structure moving in gigantic grandeur through its native element, "making the sea to boil like a pot."

Some affect to consider it as a "humbug," made by human hands on speculation. This idea is entirely erroneous. I have SEEN, and therefore KNOW it to be *veritable bone*, and in as perfect a *series* of spinal vertebræ as that of any other skeleton, human or animal. Those who call this a hoax are poor judges between bone and wood, besides being of that class who condemn Phrenology without a hearing, and too skeptical to believe their own senses.

The reader may rest assured that we scrutinized both its organization and its phrenological developments with an interest inexpressible on paper. We have room in the present number to remark only upon its physiological organization. We shall hereafter give its Phrenology, illustrated with a view of its cerebral developments, as seen from below—where the observers in the engraving are represented as standing. The union of that correct profile view here given, and that we propose to give, will furnish a complete view of its cerebral organization, which, taken in connection with its character and habits, as deduced from its anatomical formation, furnishes demonstrative evidence of the truth of Phrenological science.

Our first observation upon it appertained to the *extreme* grossness of its structure. Those physiognomical principles which we applied in our last number to man, apply equally to all organized beings, and in all epochs of the world's history; and of course, to this fossil and antediluvian specimen. Behold, first, its vast dimensions, and, next, *coarseness* of texture, as indicated by its bony *projections*. According to our doctrine, this monster was coarser, beyond all comparison, than any present occupant of our globe. The coarseness and accompanying indications of power in the whale and elephant, bear no comparison with those here evinced. This, its spinous processes fully attest. So, indeed, does every thing appertaining to it. We have seen the bones of elephants, whales and mastodons, and stood mute with admiration of their indications of muscular power; yet they are as much inferior to those evinced in this specimen, as those of the mouse are compared with those of these animals.



The Hydrarchos, or Great Sea Serpent. No. 10.

To explain more fully. Those processes or projections where the muscles are attached to the bones are more or less distinct and elevated, the stronger the muscles. Thus, in the bones of a delicate female, these processes are but slight, because her muscles are weak. In the skeleton of a man, they are usually much more conspicuous, and hence the latter is the more valuable. And the more powerful the muscular organization, the more prominent these processes. This is an established anatomical truth. It applies equally to animals. The Editor owns the entire skeleton of one of the largest and most powerful lions ever imported to this country, the skull of which he has often exhibited at his lectures, but has now lost. Throughout this skeleton these processes were immense—those on the fore legs, skull, and spine especially. The same is true of the bones of the elephant, tiger, &c. In the mastodon—that recently exhumed near Newburgh, which, by the way, we recommend every reader who can to visit, not from idle curiosity, but to *study*—these processes are very much larger than in the elephant, and correspond with its other indications of extraordinary muscular power.

On applying this infallible measure of power to the specimen before us, what do we behold? An animal whose strength was hundreds of times greater than that of the elephant, or rhinoceros, or whale, or any other animal now known! Estimated by this sure test, man can form no conception of his muscular power. Mark this point, as we shall make a most important use of it in our next article on this subject.

In farther description of the animal, we quote Prof. Silliman's letter, and from Dr. Koch's pamphlet on this reptile, and the New York Dissector:

"Several years ago, the late Judge Creagh, of Clarke Co., Alabama, found similar bones on his plantation, in such abundance that they were often destroyed, as far as possible, by fire, in order to get rid of an incumbrance that interfered with agriculture; the negroes, also, were in the habit of building their fire-places of them. The late Dr. Richard Harlan, of Philadelphia, and more recently of New Orleans, where he died more than a year since, first described and figured these bones, and supposing them to belong to a gigantic fossil lizard, he imposed the name of Basiliosaurus, or King of Saurians or Lizards.

He several years afterward carried some of the bones with him to London, and they were there reviewed by the great comparative anatomist, Professor Owen, of, the Royal College of Surgeons, who was of the opinion that the animal must have had more resemblance to the whales than the lizards. This opinion Dr. Harlan had the candor to present to the Association of American Geologists, together with the bones, at their meeting in Philadelphia, in April, 1841, where I heard his statements. Not long after, Dr. Bulkley brought to this city, and eventually to Albany, an entire skeleton of the animal, which is between seventy and eighty feet long, and is now in the State Geological Collection at Albany; but I believe it has not as yet been set up. This skeleton was fully described by Dr. Bulkley, in the American Journal of Science and Arts.

Dr. Koch, the proprietor of the skeleton now in this city, made a journey of discovery a few years since into Alabama and other Southern regions, with particular

reference to this animal. He had the rare good fortune, as the result of his perseverance, aided by the kind assistance of the inhabitants, to disinter the stupendous skeleton which is now set up for exhibition here.

It has, evidently, been done at great expense and personal toil, and the public, while they owe a debt to Dr. K., will, when paying it, receive a high gratification in contemplating the remains of a race of animals whose length exceeded that of all other creatures hitherto discovered; the spinal column of this skeleton as now arranged measures 114 feet in length. The skeleton having been found entire, enclosed in limestone, evidently belonged to one individual, and there is the fullest ground for confidence in its genuineness. The animal was marine and carnivorous, and at his death was imbedded in the ruins of that ancient sea which once occupied the region where Alabama now is; having myself recently passed 400 miles down the Alabama river, and touched at many places, I have had full opportunity to observe, what many geologists have affirmed, the marine and oceanic character of the country.

Judging from the abundance of the remains (some of which have been several years in my possession) the animals must have been very numerous and doubtless fed upon fishes and other marine creatures—the inhabitants of a region, then probably of more than tropical heat; and it appears probable also, that this animal frequented bays, estuaries and sea coasts, rather than the main ocean. As regards the nature of the animal, we shall doubtless be put in possession of Professor Owen's more mature opinion, after he shall have reviewed the entire skeleton. I would only suggest that he may find little analogy with *whales*, and much more with *lizards*, according to Dr. Harlan's original opinion.

Among the fossil lizards and Saurians, this resembles most the Pleisiosaurus, from which however, it differs very decidedly.

Most observers will probably be struck with the snake-like appearance of the skeleton. It differs, however, most essentially, from any existing or fossil serpent, although it may countenance the popular (and I believe well founded) impression of the existence in our modern seas, of huge animals to which the name of sea-serpent has been attached. For a full and satisfactory statement of the evidence on this subject, see a communication by Dr. Bigelow, of Boston, the 2d volume of the American Journal.

Dr. Koch has committed one error in naming the fossil skeleton now presented here for inspection. By every claim of scientific justice, the epithet *Harlani* should be affixed to whatever other principal name may be finally adopted. It is but simple justice to the memory of our most distinguished comparative anatomist—who first called the attention of the scientific world to the stupendous fossil animal of Alabama: and there can be no propriety (however kindly it may have been intended) in imposing the name of another individual, who can claim no other merit in the case, than the very humble one of endeavoring now, as well as formerly, to awaken the public attention to the most remarkable of our fossil treasures. Dr. K. is therefore bound to recall his new epithet, and restore to Dr. Harlan the honor which is his due. I remain, my dear sir, with great regard, your friend and servant.

B. SILLIMAN.

Brooklyn, L. I., Sept. 2d, 1845.

P. S.—It should be remarked that Dr. Koch has also brought to light the most gigantic fossil skeleton of the Mastodon family that has ever been found. It was

exhibited in our cities, and is now in the British Museum, having been purchased for two thousand pounds sterling, by that institution.

If the bones examined by Professor Owen, in London, and the "entire skeleton, between seventy and eighty feet long," now in the State Geological collection at Albany, be those of a creature identical in kind with the Hydrarchos, it is but little complimentary to the anatomical science of the examiners that they should have confounded them with those of any known variety of the Saurians. The teeth, at least, should have been taken as evidence of a decisive distinction. None of the Saurian family have teeth of more than one fang, while the incisors of the Hydrarchos have two, more and more forked as we proceed from the anterior to the posterior of the jaw. Dr. Koch thinks that these incisors, while like those of all the serpent tribe, have also some analogy to those of a marsupial animal—a singular thing enough, if we overlook the fact that all serpents are so far pouched animals as to swallow, or present an internal receptacle of refuge for their living young. It is evident, moreover, that the Hydrarchos did not masticate its food, but gorged it entire, although, says Dr. Koch, it was provided with palate bones which might have been used simply to crush its food. "Its greatly elongated snout was armed with fifty or more spear-shaped incisors whose fangs were deeply inserted in spear-shaped sockets. The pivocation is in the extreme anterior ones, and only marked by a groove; the spear-shaped crown of these teeth is divided into more or less minor spear-shaped fronts, which increase or diminish in number according to the situation the tooth occupies in the rumus; the central one of them is the largest, and those nearest the gum are the smallest. These crowns are covered by a thick coating of enamel, which had a rough surface, and are marked by small scale-like elevations which are narrow, lancet-shaped, and elongated, with their points upwards." "All the incisors are so set in the rumus and maxilla, that their extremities have an inclination backward towards the palate, like the shark, and that the victim caught could easily enter the mouth, but could not possibly escape." The canine teeth correspond with the incisors in this position, while they are from six to eight inches long.

That the creature was an air-breathing reptile, is conclusively inferred from the nasal cavity, in which the posterior vents are at the back part of the mouth, enabling it to respire deeply and freely. It is not improbable that, like the Pleisiosaurus, this stupendous serpent was a coasting rather than a deep ocean reptile, as indeed are all known marine creatures of a kindred form. Not only its necessity of breathing, but the prodigious size and muscularity of its cervical vertebræ, indicate its habit of rearing itself above the water; and when we also examine the peculiar structure and marvelous strength of its massive lumbar vertebræ, which may be regarded as the axis of its muscular power, we feel authorized to conclude that it could erect nearly two-thirds of its entire length from this basis, in a majestic curve above the surface of the tide—often, doubtless, in tranquil seasons, a glowing mirror of its gorgeous form and stately movements. Its eyes, too, which were from six to eight inches in diameter, were so prominently situated on the forehead as to secure it a vast circle of vision, and render it a vivid object of terror; and when Job says of his leviathan that "his eyes are like the eyelids of the morning," the force and beauty of the poetic hyperbole are as appropriate to the eyes of the Hydrarchos as to those of any animal, not purely imaginary, of which we can form an idea.

Upon the general osseous structure of this mighty being, we will quote the description given by Dr. Koch:—"The propelling motion of the animal was, like that of all the serpent tribe, dependant upon the action of its powerful vertebræ, and the strong muscles and ligaments acting in harmony with them. The strong and lengthy tail, was more particularly used as a rudder to direct its course, as well as for the purpose of propelling. The transverse processes, which are very large in the whole spinal column, are more especially so in the caudal or tail vertebræ, the canal for the spinal marrow is very much compressed and flat, and the spinous processes have a great inclination backward, [probably enhancing its springing or ejaculative power.] The dorsal and lumbar vertebræ are greatly elongated, measuring each from fourteen to eighteen inches in length, and having a circumference

of from twenty-four to thirty inches. Their construction differs from those of any animal with which I am acquainted, as each body of these vertebræ is composed of five sections. In the center, we observe the main body to which all the processes are attached, and which measures from five to seven inches in length; to both extremities of this is a pelvis. The section is anglelozed, measuring from three to four inches in length, and to the extremities of these again we find a pelvis. The whole is anglelozed and ossified together in an adult, but will separate in younger animals, as I have had an opportunity of observing personally. [Dr. Koch found several imperfct skeletons of younger specimens of this creature.] The cervicle, or neck, and the coxyxal, or tail vertebræ, have powerful processes, but their bodies have not the additional divisions described above, as found in the dorsal and lumbar vertebræ. The ribs are of a very peculiar shape and form; so much so that I know of no animal to which I might compare them. The greater number are small and remarkably slender on their superior extremities, until we arrive within two thirds of the length toward the inferior extremities, where they begin to increase in thickness most rapidly, so that near the lower parts, where they are flattened, they have three or four times the circumference that they have on the superior extremities, and have very much the curve of the sickle. From the whole of their construction, we may justly form the conclusion that the animal was not only possessed of a fleshy back of great power, but also of remarkable strength in its belly, by which means it was enabled to perform very rapid movements. Notwithstanding its two fore feet, or paddles, are quite small in comparison with the rest of the skeleton, yet they are in proportion with the short and thick humerus and ulna or forearm, which, together with the paddles, must have been concealed under the flesh during the life of the animal, in such a manner as to be only perceptible through muscles and cartilages, similar to the fins of an eel. The humerus and ulna are not unlike those of the Icthyosaurus; and each paddle is composed of twenty-seven bones which form, in union, nine forward and backward articulating joints.

Upon this description we have only to remark that the peculiar form here correctly assigned to the ribs of this ponderous creature, in being so much thicker and stronger at the part of the curve where they turn to bend under the belly, is evidently an admirable provision of Nature for sustaining the immense superincumbent weight of its mass, when resting upon a shore, or depositing its bulk for repose, upon the bottom of any other shallow waters; and as a respiring reptile, this sea-serpent must have often enjoyed the ease of such a position, fearless of every foe. That none of the Saurians, nor any other animals, should be found to exhibit this very striking singularity of costal structure, is simply because they were otherwise furnished and did not need it; while to this creature, devoid of legs, and all pedal points of support, the provision was indispensable, and he accordingly possessed it. After all, the ribs seem exceedingly slight for so bulky a mass, and there can be no doubt that they were strengthened with those well-knit bands of intercostal cartilage and muscle, which supply the place of osseous ribs in the large conger eel, and other varieties of the serpent race.

Concerning the natural habits and capacities of this wonderful animal, comparative anatomy will spread a rich field of beautiful analogy and scientific induction.

Whether he was amphibious to the extent of our present water snakes, may well be doubted from the evidence afforded by his side fins of a more decidedly piscine character. The last joint of his tail, too, indicates a final bifurcated fin; and the finding of this termination of the vertebræ, cannot but be regarded as a most felicitous circumstance, for while it tends to determine the animal's distinctive nature, it also proves an admirable tapering symmetry of form, peculiar to the serpent species.

The number and value of the lessons on organization, as corresponding with mentality taught by this specimen, are too great to be thus cursorily dismissed. Having now *described* it, we shall in a subsequent Article, deduce those organic and phrenological lessons it so forcibly exemplifies.

Meanwhile, we say, with great *emphasis*, to all within reach of this great scientific curiosity, GO AND SEE IT WHILE YOU CAN. I would not, for hundreds of dollars, have foregone the sight.

ARTICLE IV.

ADAPTATION, FUNCTION, LOCATION, AND RIGHT DIRECTION OF SELF-ESTEEM; ILLUSTRATED BY AN ENGRAVING.

CONCEITED SIMPLETON. No, 11.

PREDOMINANT Self-Esteem, in both head and character, was among the first phrenological observations made by the Editor. One of his classmates whose head was small, organization coarse and sluggish, and natural abilities every way inferior, was nevertheless a consummate brag. His inordinate Self-Esteem construed into commendation even the *ridicule* excited by his recitation blunders and crude performances. He lauded all he did and said, however poorly executed. His head projected far up and back at the crown, like that of the CONCEITED SIMPLETON, to whom, in character, he was at least second cousin.

Another college-mate whose head was similarly formed, only still more elongated in the crown, was one of the most consummate egotists to be found—always engrossing the conversation, and perpetually telling what splendid performances he had achieved, and what a most distinguished man he was about to become. These, and other like confirmations of phrenological science, observed in college, strongly recommended this science to examination, and enforced the conviction that it was *true*.

We have selected SELF-ESTEEM for analysis in this number, partly to correct some fundamental errors which prevail as to its true function, but mainly to promote its cultivation and *right exercise* among our readers.

Most of the phrenological organs were discovered, named, and described from both their *extreme* and their perverted development; and hence their perverted functions still pass for their legitimate ones. Thus, Destructiveness was discovered by the extreme fullness between and over the ears, of the skulls of several murderers, and accordingly named the *killing* organ. This is its *perverted* function, its true office being to impart force and executiveness to character. Similar remarks apply to the discovery and early descriptions of most of the propensities. This mistaken opinion as to the true functions of organs gave rise to a majority of the objections generally urged against our science; those urged by Good being all of this class. Hence, in correcting public opinion in these important respects, we are effectually *obviating objections*, as well as imparting just the information required by learners and the public generally.

SELF-ESTEEM is one of the misconstrued faculties; nor has the Editor anywhere seen any analysis of it which at all comes up to his ideas of its constitutional function. Its full development is generally supposed to render its possessor necessarily proud, pompous, conceited, egotistical, supercilious, dandified, swaggering, ostentatious, self-willed, arbitrary, dogmatical, domineering, grasping, and every way selfish; yet all these are the products of its *perverted or excessive* action, not of its *primitive* function. Thus, the man from whose bust (taken from life) the accompanying likeness was copied, though a flat—not even *compos mentis*—yet *thought* himself the greatest man of the town; and though one of the very homeliest of men, yet he considered himself a perfect beauty; and prided himself more particularly on being a favorite with the *ladies*, who regarded him only as a butt of ridicule. He talked large at public gatherings, and strutted, and boasted of his extraordinary attainments, while in fact he had every reason to hide his head in perpetual shame and silence.

These and kindred examples have perpetuated and extended the erroneous analysis of this faculty just given, but all such manifestations of this faculty result from either its excessive development, or its perversion, generally accompanied, as in this instance, with a want of intellect properly to balance and direct it. Mark well the general fact, that whoever swells, and swaggers, and domineers, has but an inferior moral and intellectual development; or at least, less of the latter than of Self-Esteem, whereas *true* greatness implies an ascendancy of the *higher* faculties over Self-Esteem.

Having seen what Self-Esteem is *not*, let us next inquire what it is. In doing this, its *adaptation* is our unerring interpreter of its legitimate function. The value of these adaptations of the faculties, as exponents of their precise office, is not yet appreciated. We invite special attention to them.

ADAPTATION. George Combe, in his lectures at Philadelphia, remarked

of Self-Esteem to this effect: "When we contemplate the vast dimensions of mountains, and even of our globe itself, when we behold with awe that manifestation of Almighty power displayed in the creation of Niagara, or contemplate the immensity of the universe itself, with all its infinitude of worlds, man becomes comparatively the merest cipher, and, if left to experience, that sense of inferiority and almost utter nothingness which really belongs to him, would be rendered completely miserable thereby, and could not be or do any thing—not even so much as hold up his head." Though we entertain the highest opinions of the talents of this noble apostle of phrenological science, and though his views as a whole are almost always correct, yet in this instance we are constrained to take ground exactly opposed to his views—not, be it distinctly observed, as regards the *effects* of Self-Esteem on character, or its description, for in this we agree—but in the *reason* of its existence—in its *philosophy*, *rationale*, or *why*. He would adapt it to the *littleness* of man, we to his nobleness. He would make this faculty tell man a perpetual and practical falsehood—tell him he is something, when in fact he is nothing—we would make it tell him a great practical and most beneficial *truth*. He would make man among the *least* of the works of God; we among the greatest. Is not organized, sentient nature, however small, higher in the scale of being than unorganized, however large? Has not God manifested more divine power, wisdom, and goodness in the creation of man's wonderful array of bones, joints, muscles, limbs, vital organs, nerves, brain, &c., than in all physical creations besides? But the creation of *mind* is the greatest work of God. Compared with this, all else is "dust and ashes," farther than it facilitates mental action. Who can contemplate the human mind without the very highest emotions of admiration of its workmanship and adoration of its Author?

But, however beautiful and perfect the creation of man's animal faculties—his domestic affections, self-defence, appetite, provision for future wants, emulation, &c., yet it is his *moral* faculties which constitute the *crowning* glory of his nature. These make mankind the brothers of *angels*, and the "sons and daughters of the Lord Almighty." They even array him in the robes of *immortality*, by conferring on him an undying *soul*, together with the privilege, if he please to avail himself of it, of *eternal happiness*, and of an order infinitely surpassing our highest conceptions. Who would not rather be a human being than all the *world* besides? What higher destiny, what nobler elements, are possessed this side of Heaven? Let others who choose be Gibraltars, and Chimborazoes, and Niagaras, but let *me* be clothed in the robes of *humanity*. Let my highest glory be to be crowned with its dignities, and to inherit its prerogatives. I would rather be a *man* with barely food and clothing sufficient to sustain that manhood in all its power and glory, than to possess all the riches, and be clothed with all the honors, and even to wear all the crowns of the earth! I would rather be a *man* than any other known thing

in the universe, an angel not excepted, for if I fulfil my duties and destinies in this life, I shall soon be with them and like them, besides having the experience of humanity proper. Words are utterly powerless to express the estimation in which I hold humanity, as it is by constitution, and would be in *manifestation*, if men only understood and obeyed its laws. It embodies a beauty, a perfection, a glory, even a *Divinity* which we can all experience—though only in a lower degree, because none of us bear any comparison, in original constitution, with what mankind might be if parents, as parents, were what they should be—yet which the language of Heaven alone could describe.* Every human being is possessed of a Divine treasure, which he will do well to examine and *improve*. By original constitution, man is not that weak and wicked *thing* many take him to be—all sin by nature without one constitutional virtue—but is all that even a God could render him, in both capacity for enjoyment, and in inherent virtue and goodness.

This being the case, man has a *right* to that exalted opinion of himself which fully developed Self-Esteem would naturally inspire. He need not hang his head and sink back into the corner of insignificance. He is not a worm of the dust, unless his sins make him one, but a brother of *angels*. Nor need he feel unworthy, or inferior, or degraded, except in consequence of what he *does* instead of is. An exalted idea of his nature, and capabilities, and virtues, is in perfect accordance with them, and therefore both proper in itself, and even a *duty*. Not that we should not be humble toward our *God*, but we should not feel beneath and below our fellow-man. That feeling of self-abasement which so many cultivate as the height of virtue, *is a sin*, because it *paralyzes effort*, prevents aspiration, and tends to self-degradation. What can he do or become who considers himself a poor, unworthy, insignificant, degraded vermin? Telling a boy, or any one else, that he is disobedient, ugly, bad, hateful, and only half-witted, is the most effectual way to render him so; because it sinks him in his own estimation, and makes him think he really is not and cannot be, or do, any thing, and this prostrates energy, paralyzes effort, and degrades him in his own estimation, and therefore in conduct. This is human nature. But the way to induce any one to become or do any thing is to get them to think they *can* do and become what is required. This, too, is human nature. How is it in the Washingtonian movement? As long as men were told that they *could* not become temperate,—that drunkards *could* not be reformed—and were considered pests instead of men, they drank on. But, as soon as Washingtonianism told them that they were

* None but Phrenologists can duly appreciate, because none others can as fully understand, the nature of man. This science is perpetually unfolding to me some new beauty, some additional perfection; nor do I even now know the mere alphabet of that nature. Light and darkness are not more opposite than the views I once had of it, compared with those now entertained.

men by *nature*, and could soon again become men by temperance—as soon as it put them on the feet of SELF-RESPECT—they put forth efforts to make themselves what they were encouraged to become. Men require to be *encouraged* by being told that they *are* something, rather than discouraged by being held up to themselves in their worst aspect.

To these two principles of human nature, first, its natural capabilities and exaltation, and secondly, to the influence of self-confidence and self-estimation of character and conduct, SELF-ESTEEM is adapted. Without it, man would place little or no value upon himself, and forever distrust his own capabilities, and thus neither undertake nor accomplish much. As he who aims at the sun shoots higher than he who aims at some low object, so he who has large Self-Esteem to elevate his aims and aspirations, will accomplish incalculably more than he whose Self-Esteem is small, aims inferior, self-confidence feeble, and conduct consequently descending.

FUNCTION.

This adaptation of Self-Esteem discloses its true function, and exposes its perversions. It was created to give us a due degree of self-respect, and reliance on our own selves—to impart a dignity and nobleness to our demeanor and conduct, to make us aspire to fill in attainment and conduct, that high rank we were created and are capacitated to fill, to expand our ideas, raise us above the low and mean, strengthen our hands, and encourage our souls.

THE CULTIVATION AND RIGHT DIRECTION

of this faculty are exceedingly important, as the nature of its function implies. This we shall endeavor to expound in the series of Articles on Self-Improvement announced in the January Number. Very many highly important *inferences* also grow out of this analysis. These also we shall endeavor, at some future time, to present.

LOCATION.

To find this organ, proceed as follows: Draw a perpendicular line, when the head is erect, from the opening of the ear straight up to the top of the head. You are now on the fore part of Firmness. Carry your finger directly back two inches (sometimes a little less,) and you are on the organ. The *crown* of the head is usually on or very near the organ.

It has two departments, and performs two functions. Its upper portion exercises the office just described, and its lower, that of SELF-GOVERNMENT or will—a function, the importance and proper cultivation of which we shall soon present in the series of Articles on Self-Improvement already commenced.

MISCELLANY.

The Phrenological Almanac for 1846, has already reached its 30th thousand. Its great merit is its views of the TEMPERAMENT'S, and short analysis of all the faculties. For giving a concise view of Phrenological science, it probably has no equal. Hence, its circulation makes converts rapidly, because it shows cavilers *what the science is*—an unanswerable argument for its truth. Single copy six cents, or 50 cents per dozen; mailable.

Explanation. Those who understood our Dec. No. to promise "Love and Parentage" and "Amativeness" to *Journal* subscribers, mistook our meaning. The article was headed *Subscribers to Amativeness*, and the promise of these works was to *these* subscribers, instead of to *Journal* subscribers. We might have been more explicit, yet reperusal in view of this explanation will show that we did *not* promise these works to *Journal* subscribers, but only *both* works to those who had previously subscribed for either.

The Hand-Book of Hydropathy, is what it claims to be—an excellent *practical* treaties on the *Water-Cure*, which our readers know we cordially advocate. More concerning it when we have more room. For sale at the Journal office, and mailable. Price 37 1-2 cents.

To Correspondents. Enquirer's question what developments are requisite for a lawyer, and what for a doctor, is important, yet could not be answered in the Feb. No. as requested, because the former was not even mailed till the latter was all *stereotyped*. It can be answered much more effectually towards the close of the volume than now, and will be in the series of articles on Self-Improvement. Meanwhile it is answered in "Education and Self-Improvement," a new edition of which is in progress.

If communications deemed worthy of notice or insertion, should remain unnoticed for months, their authors will remember that Journal room is so scarce as often to compel postponements.

The developemeuts of distinguished men, sent us from New Haven is excellent, and will be published in our next. Its author has our thanks. Several other interesting articles are in the printers hands for insertion as soon as room can be spared.

To agents and co-workers. Some agents complain that we name our lowest terms because subscribers expect the Journal at these reduced prices, thus preventing those who solicit subscribers from obtaining compensation for their trouble, who therefore sometimes solicit us to afford them still lower to such. This we really cannot do. We appreciate their difficulty, and lose some subscribers in consequence, yet gain more by allowing neighbors to form clubs, and thus *save* their own agency. Those who get subscribers for the percentage, do well, but those who labor for the *cause*, do *more and better;* and since our terms must favor one at the expense of the other, we much prefer to favor those who labor—as the Journal does—for the *cause*. Those who send $10 for 20 subscribers, and afterwards wish to add others. will be furnished at 50 cents per additional subscriber.

Evils inherent in the Present System of Prison Discipline. Whatever is right, will have no evils necessarily growing out of it. This is not the case with the present system of prison discipline. Both Phrenology and the teachings of Christ unequivocally condemn the present method of punishing those who violate civil law. Punishment *should* make all convicts better. It invariably renders them worse. It is questionable whether that tenant of a prison can be found who did not become worse instead of better during confinement. The following narrations, besides being touching in themselves, are by no means solitary cases. All who go to prison are necessarily subjected to the same deteriorating influences. Vice is catching. The worst stay the longest, and all this time propagate their own vices. Who but sees that the congregation of the wicked is directly calculated to render all worse? The bad should associate with the good; so that their own better feelings may be cultivated. M. B. Sampson, of London, in an essay on the punishment of criminals, takes right ground. We designed years ago, to have laid his views before the public.

The following, from the New-York Tribune, shows the contaminating effects of the case-hardened convicts, on those comparatively innocent. The evil here brought to light, requires to be remedied speedily.

Effects of Contamination. The following narration was given by one of the former Matrons in the Female Department on Blackwell's Island:

"I remember," said the Matron, "distinctly of two young girls who were brought to the Island, and given into my charge. They were not sent up for any crime, but were found in a dance-house, were umbrella makers by trade—young, interesting and comely in their deportment—apparently free from vice and evidently unacquainted with crime.—I shall never forget their horror-stricken looks when I took them to the cells and turned the key upon them. The next day I was obliged by the Rules to take them down to the shanties and set them at work. Here they were compelled to make companionship with those who had earned a notoriety by their crimes—who were steeped to the dregs in vice, and openly boasted of their depravity. I witnessed with pain and sorrow their daily intercourse and growing intimacy with these wretches, and my heart yearned with a mother's sympathy for them. But I could do nothing to aid them. They were in a school of corruption and cankering vice, with old and experienced teachers all around them. I watched them narrowly, and could daily observe the foul destroyer creep stealthily into undisturbed possession of their souls. In a brief period their full dereliction was accomplished. The rank poison of *contamination* had done its fatal work. Years spent in open, shameless prostitution could not have turned out more finished scholars, as their altered deportment, coarse, vulgar language and horrid oaths gave painful evidence. Before the expiration of their sentences, they became incorrigibly bad. When our Christian city sent them away to be reclaimed they were comparatively guiltless—when she returned them to her bosom, it was to swell the ranks of vice and crime."

This is a true and faithful history of the baneful effects of contamination by the old upon the young offender in our Prisons. They are of daily occurrence, as is attested by those who, in the discharge of their duties, are compelled to witness them.

Will not those who are connected with the 'Prison Association' take this subject in hand—give it their earnest attention, and counsel together as to the remedy? Bleeding and suffering Humanity demands it. Justice to our fellow-beings claims it. Their blood is upon our heads, who suffer such as these to be swept into the ranks of Crime, without striving to aid them. They need classification and different modes of treatment. The young, more than all, need a home for Reformation instead of a fruitful school for degrading vice and soul-destroying crime. Those farther advanced should have kind and judicious keepers.

How old is Man capable of Becoming? All facts like the following, which bare on this most important point—the prolongation of life—should be recorded, especially when accompanied, as in this instance, with those *habits* of their subject which throw light on the *causes* which evidently contribute to such extreme prolongation of life. In this case, hunting, and the great physical exertions he put forth in early life, together with that simple fare which those times imposed, were doubtless the most efficacious. "Like causes produce like effects." Not that we would recommend "hunting" and "Indian wars" to aspirants after extreme age. It was the *fresh air and vigorous exercise* of these wars and hunts which prolonged his life. The same amount of air and exercise, taken in any other pursuit, would have had an equally beneficial influence on life.

"Mr. John Burner lately died in Virginia at the age of 102, having never been married. He was a hunter in early life, was engaged in the Indian wars, and when they left the soil of Virginia, he quietly settled down in Shenandoah county. He died much respected, being the oldest of the pioneers of that State."

But, as opposite causes produce opposite effects, what must be the doom of those delicate, shiftless moderns who occupy heated rooms from October to May, and sit perpetually at that, nor venture out of doors oftener than once or twice per month, and then only a few blocks? *Premature death!* What, too, must those expect who sit and sew by the year—*by the lifetime? An early grave!*

How to Prolong Life. The following, translated from the German, bears on the above point, and should be carefully perused, especially by the young:

"Are there any among you, my young friends, who desire to preserve your health and cheerfulness through life, and at length to reach a good old age? If so, listen to what I am about to tell you.

"A considerable time ago I read in one of the newspapers of the day, that a man had died near London, at the advanced age of 110 years, that he never had been ill, and that he had maintained through life a cheerful, happy temperament. I wrote immediately to London, to know if, in the man's treatment of himself, there had been any peculiarity which had rendered his life lengthened and so happy, and the answer I received was as follows:—

"'He was unusually kind and obliging to every body; he quarreled with no one; he ate and drank merely that he might not suffer from hun-

ger or thirst, and never beyond what necessity required. From his earliest youth he never allowed himself to be unemployed. These were the only means he used.'

"I took a note of this in a little book where I generally write all that I am anxious to remember, and very soon afterward I observed in another paper that a woman had died near Stockholm at 115 years of age, that she never was ill, and was always of a contented disposition. I immediately wrote to Stockholm, to learn what means the old woman had used for preserving her health, and now read the answer.

"'She always had a great love of cleanliness and in the daily habit of washing her face, feet, and hands in cold water, and as often as opportunity offered, she bathed in the same; she never ate or drank any delicacies or sweetmeats; seldom coffee, seldom tea, and never wine.'

"Of these likewise I took a note in my little book.

"Some time after this, I read that near St. Petersburg a man died who had enjoyed good health until he was 120 years old.—Again I took my pen and wrote to St. Petersburg, and here is the answer:

"'He was an early riser, and never slept beyond seven hours at a time; he never was idle; he worked and employed himself chiefly in the open air, and particularly in his garden. Whether he walked or sat in his chair, he never permitted himself to sit awry, or in a bent posture, but was always perfectly straight. The luxurious and effeminate habits of citizens he held in great contempt.'

"After having read all this from my little book, I said to myself, 'You will be a foolish man indeed not to profit by the example and experience of these old people.'

"I then wrote out all that I had been able to discover about these happy old people upon a card, which I suspended over my writing desk so that I might always have it before my eyes, to remind me what to do, and from what I should refrain. Every morning and evening I read over the contents of my card, and obliged myself to conform to its rules.

"And now, my dear young readers, I can assure you, on the word of an honest man, that I am much happier, and in better health than I used to be. Formerly I had the headache every day, and now I suffer scarcely once in three or four months. Before I began these rules, I hardly dare to venture out in rain or snow without catching cold. In former times, a walk of half an hour's length fatigued and exhausted me; now I walk miles without weariness.

"Imagine, then, the happiness I experience, for there are few feelings so cheering to the spirits as those of canstant good health and vigor. But, alas! there is something in which I cannot imitate these happy old people—and that is, I have not been accustomed to all this from my youth.

"Oh that I were young again, that I might imitate them in all things, that I might be happy and long-lived as they were!

"Little children who read this, you are the fortunate ones who are able to adopt in perfection this kind of life! What, then, prevents your living henceforward as healthy and hapily as the old woman of Stockholm, or as long and usefully as the old men of London and St. Petersburg?"

Great Intellectual Capabilities as accompanying strong Constitutions and great tenacity of life. In his work on Hereditary descrcent, page 250, the Editor remarks as follows on this subject:

"*First*: All great men are from long-lived parentage. Washington's

mother was found *at work in her garden* when eighty-two: and died at eighty-five. Franklin's parents were aged. O'Connell is from a very long-lived stock, and in his prime now when he is past sixty. Charles G. Finney's father lived to be about 84, and mother above 80; and a brother of his father is now alive, and considerably above 90. De Witt Clinton's ancestors were long-lived, and also distinguished for talents. Those who settled New England were generally long-lived, and to that cause, in no inconsiderable degree, is to be attributed our national greatness and talents. John Quincy Adams' great grandfather lived to the age of 93, and father 91; and so of Dr. Bowditch, Carlyle, Dr. Johnson, Webster, and a host of others. Nor do I know a distinguished man who is not from a long-lived ancestry. Indeed, that very condition of physical strength already shown to be absolutely necessary to sustain a very powerful brain, also gives and accompanies longevity.

"Every day's observation since the above was penned, in 1843, confirms its truth. The papers stated, about a year ago, that Dr. Nott, the venerable and talented President of Union College, was about *eighty-six*. And yet how remarkably he retains his faculties! They also stated that he had a brother in Farmingham now about *ninety-seven*. Both of these facts show that these brothers were from a long-lived race."

The Rothschilds are also distinguished men. Their success in amassing wealth shows that they were endowed with great physical and mental energy, and stamina. Nothing short could have sustained them through their arduous and long continued labors. This erimina they must have *inherited*. The present advanced age of their mother, and their still remaining energy of her mind as evinced in the following sensible and witty reply to her physician, shows that she possessed both a vigorous body and mind.

"MADAM ROTHSCHILD.—The venerable Madame Rothschild, of Frankfort now fast approaching to her hundreth year, being a little indisposed remonstrated in a friendly way with a physician on the efficiency of his prescriptions. 'Indeed, Madam,' replied the doctor, 'unfortunately we cannot make you younger.' 'You mistake doctor,' rejoined the witty old lady, 'it is *older*,' not younger, that I desire to become.'"

The oldest Anglo American on record. Longevity Hereditary. The following shows, first, what an advanced age it is possible for mankind to attain, and yet retain their capabilities of enjoyment; and secondly, that longevity is hereditary, his descendants also living to become thus aged.

REMARKABLE OLD AGE. William Pridson, of North Carolina, died on the 14th ult., at the extraordinary age of 124 years. He had served a full term in the war of the Revolution, although *then* legally exempt by reason of over age. His grand-children are old infirm people, and several of his great-grand children are advanced of forty. He was able to walk until a few days before his death. He was probably the only man who has ever attained that age in the United States."

Poor Frenchmen.—Of nearly 33,000,000 persons in France, says the *Reforme*, there are 27,000,000 who do not drink wine; there are 31,000,000 who never taste sugar; there are 20,000,000 who never wear shoes; there are 31,000,000 who never eat meat; there are 18,000,000 who never eat wheaten bread; and finally, there are 4,000,000 clothed in rags.

Mirthfulness. In our analysis of Joseph C. Neal's character, we ascribed to him an unusual development of Mirthfulness; of which the following, clipped from "Neal's Saturday Gazette"—a paper better worth reading than one in thousands—is a beautiful exemplification. His large Comparison also rendered essential aid in this instance. Observe the coincidence between his developments and their manifestation.

"SLIDING DOWN HILL.—The civic rulers of Hartford, Connecticut, have passed an ordinance to prevent boys from "sliding down hill;" which causes one to think what a happy thing it would be if legislators could, by some process of enactment, bring forward another "piece of ordinance," which, when leveled, might prevent men likewise from sliding down hill. A great many people, besides boys, are of the down hill tendency. Even of those who, part of their lives, go up hill, some are to be found who eventually slide, never stopping till they reach the bottom. And so others are born, rich men's sons, for example, at the very tops of hills, who contrive to slide down hill a great deal faster than their fathers crawled up; and they do so at all seasons, without waiting for frosts, or ices, or snows. But, we fear that there is no remedy in law; and that the "Slyders Downehylle" must be permitted to persist in their melancholy sport, destructive though it be."

"*Dr. Buckland on Substitutes for Potatoes.*" We copy the following because it embodies some important facts and principles respecting *what* we should eat—one of the *all-important* subjects for human investigation. We also wish to endorse its recommendation of *peas and beans*, especially in their *mature state.*

SUBSTITUTE FOR POTATOES.

Dr. Buckland read the following paper before the Ashmolean Society, Oxford.

LIEBIG has shown, in his 'Organic Chemistry,' that it is one function of the vegetable kingdom to prepare the elements of flesh and blood for the use of animals. That carbon of charcoal, which is indispensable to the act of breathing, but contributes little to muscle or bone, abounds in potatoes, rice, sago, sugar, brandy and beer, while the cereal grains of wheat, barley rye, and oats, and seeds of leguminous plants, especially peas and beans, are loaded with the constituents of muscle and bone, ready prepared to form and maintain the muscular fibre of the bodies, of animals, *e. g.*, gluten, phosphorus, lime, magnesia, sulphur, &c. Hence the rapid restoration of the shrunk muscle of the exhausted post-horse, by a good feed of oats and beans. Hence the sturdy growth of the Scottish children on oat-cake and porridge, and of broth made of the meal of parched or kiln-dried peas: on this a man can live and do good work for 1 1-2d. a day; while the children of the rich, who are pampered on the finest wheat flour (without the pollard or bran) and on sago, rice, butter, and sugar, become fat and sleek, and would often die, as sometimes they do, from such non-nutritious food, but for the mixture of milk and eggs they eat in cakes and puddings. The best biscuits for children have an admixture of burnt bones, and the flour of bones is often mixed by bakers with that of wheat in bread; (bating the fraud,) the bread is better and more strengthening than if made entirely of wheat.

Potatoes contain but little nourishment in proportion to their bulk; they are chiefly made of water and charcoal, and an Irishman, living exclusively on potatoes, and eating daily eight pounds, would get more nourishment

and strength from two lbs. of wheat brown bread (not white), or two lbs. of oat-meal, and from less than two pounds of peas or beans: and as about six potatoes of middling size go to a pound, an Irishman will eat daily 48 potatoes, and a family of seven 336 potatoes.

Before potatoes were known, the food of the poorest English peasantry, and of soldiers, was barley-bread and peas. Sir W. Bentham has found in Dublin, records of a vessel that was wrecked in the 15th century near Liverpool, laden with peas from Ireland to the army in England. In Hollinshed's Chronicle we read this passage:—"A large mouth in mine opinion, and not to eat peasen with the ladies of my time."

Peas were then the food of the ladies, and also of Monasteries. Friar Tuck laid before his prince, as his first dish, parched peas. An old laborer at Axbridge complained to his master, that men feeding on potatoes could not do now so good a day's work as when he was young, and when they fed on peas.

"Peas, sir," said he, "stick to the ribs."

He uttered the very truths of Organic Chemistry.

In beans we have vegetable "caseine,' or the peculiar element of cheese. What is more restorative or more grateful to man when fatigued by labor or a long walk? As we warm or toast it, it melts, and ere it reaches our mouth, is drawn into strings of almost ready-made muscular fibre: and who has never dined so fully as not to have some room left for a little bit of cheese?

Economic farmers should feed their growing, but not their fattening hogs on beans, and finish them with barley meal: their flesh is hard, and the fat not solid, and dissolves in boiling, if fed to the last on beans.

What is so restorative as beans to the jaded hack or the exhausted racehorse? Sepoys, on long voyages, live exclusively on peas. The working and healthy man and beast want muscle and not fat; fat encumbers and impedes activity, and every excess of it is disease. We seldom see a fat laborer or a fat soldier, except among the sergeants, who sometimes eat and drink too much.

Charcoal, which, next to water, forms the chief ingredient in potatoes, is subsidiary to life, though not to strength. The same is true of the charcoal which is the main ingredient of rice, sago, sugar, butter, and fat. The woman at Tutbury, who pretended to fast for many days and weeks, sustained life by secretly sucking handkerchiefs charged with sugar or starch. During the manufacturers' distress in Lancashire five years ago, many of the poor remained in bed covered with blankets, where warmth and the absence of exercise diminished materially the need of food.—When Sir John Franklin and his polar party traveled on snow nearly a fortnight without food, they felt no pain of hunger after the second day; they became lean and weak by severe exercise and cold, but sustained life by drinking warm water, and sleeping in blankets with their feet round a fire.

I will now consider the best substitute for at least one-third of the potato crop, which has already perished all over Europe, and this in Ireland is the loss of the only winter food of two millions of the people. In times of scarcity, man must take unusual trouble and adopt unusual experiments. Happily this year the crop of turnips is large and good, and already in Hampshire farmers are selling turnips to the poor at a moderate price. This, if done generally, will form one kind of substitute for the lost potatoes. Field carrots and parsnips and mangel-wurzel, which have been grown for sheep and cattle, may be also reserved for boiling, and if sold at the

usual price of potatoes, will supply more nourishment than an equal weight thereof. I shall not plead in vain to the farmers of England for this boon and benefit to their poor neighbor, who may otherwise be distressed for food, and suffer hunger. Oil-cake will do as well or better for the sheep, and may be bought with the price of the above roots.

It has been already stated that the most nutritious of all vegetable food is the flour of peas, which was the staple food in Europe before potatoes. The flour of kiln-dried peas, stirred in hot water, makes a strong and pleasant Scotch brose, on which alone a man may do good work. Barrels of peas brose flour may be brought from Scotland, or prepared in England wherever there is a malt kiln.

In England, peas-soup and peas-pudding are still a common and most nourishing food. Our forefathers and their children, we know from nursery rhymes, ate

> Peas-pudding hot, peas-pudding cold,
> Peas-pudding in the pot, and nine days old.

Let us, for a part of this and next year, once live as they lived 300 years ago. Boiled or fried slices of peas-pudding are not unsavory food; and what boy would not prefer parched peas to nuts?

Let every laborer who can get them lay up a sack or two of peas, and he will be safe. Where peas cannot be had, let him lay in a sack or two of beans, their flour is as nutritious as that of the pea, and has no bad taste; bakers mix it with bread and we taste it not; mixed with meal of wheat barley, or oats, it makes good cakes or puddings, and strong soup or broth. All over the world, excepting England, both the rich and poor rarely dine without a dish of beans, sometimes their only dish. Let resident proprietors, and chief farmers in each village, lay in a stock of peas and beans, and sell them to the poor three or four months hence, at their present cost. Let them also reserve for their laborers, at present prices, some good barley and oats, to be ground into meal next spring, when food will be most scarce.

Barley bread or cakes alone are not good for working men, they are too heating, but mixed with other flour, or eaten with other kinds of food, barley is very nourishing.

Oat-cake is the bread of all Scotland, and of much of Ireland, and of the north of England; and oat-meal made into broth and porridge is the universal and almost the only food of Highland children. Let those who have quailed under the charge of a Highland regiment tell the result.

Bread made of rye is the chief food of farmers and laborers in Germany and the north of Europe, it is of a dark color, and little used with us, but it is very nourishing, and in time of scarcity is a good substitute for wheat.

Rice and sago eaten alone may suffice for persons who take little exercise, for women and children, but not for working men. These and potato flour may be added to give bulk to the more nutritious kinds of meal above mentioned.

Lastly, let every poor man get his garden vegetables as forward as possible next spring. Let him plant his potatoes early, and when the ground is dry; let the sets be entire, or if not, let the pieces be shaken in a sieve of quick-lime before planting. Before to-morrow's sun has set, let every man bestir himself and take a little extra trouble in the next year. Let no man shut his eyes and fold his arms, and say there is no danger, but let one and all arise to-morrow and put their shoulders to the wheel. The blessing of Providence will help, and rest on those who may help themselves. "Up and be doing, and God will prosper."

Affection of Elephants.—I have seen many strong instances of the attachment of brutes to men, but I do not think I ever saw that feeling so strongly manifested as by a very young elephant that was brought to England.—Never was parent more fondly caressed by a child than was the keeper of this affectionate creature by his charge. If he absented himself even for a moment the elephant became restless, and if the absence was continued for a few moments its distress was quite painful to the spectator. After trying the different fastenings of its prison with its as yet weak proboscis, it would give vent to the most lamentable pinings, which only ceased when its friend and protector re-appeared; and then how it would run to him, passing its infant trunk round his neck, his arm, his body, and lay its head upon his bosom. The poor man had a weary time of it. He was a close prisoner, nor was he released at night, even, for he was obliged to sleep by the side of his nursling, which would have pined and died if left by itself.—*Colburn's Magazine.*

Writing and Drawing.—Hon. Horace Mann, State Superintendent of Massachusetts schools, says, in a report of visits to schools in Europe: "Such excellent hand-writing as I saw in the Prussian schools, I never saw before. I can hardly express myself too strongly on this point. In Great Britain, France, or in our own country, I have never seen schools worthy to be compared with theirs, in this respect. This superiority cannot be attributed in any degree to a better manner of holding the pen, for I never saw so great a proportion in any schools where the pen is so awkwardly held. This excellence must be referred in a great degree to the universal practice of drawing contemporaneously with learning to write. I believe a child will learn both to draw and write sooner and with more ease, than he will learn writing alone. In the course of my tour, I passed from countries where almost every pupil in every school could draw with ease, and most of them with no inconsiderable degree of beauty and expression, to those where drawing was not practiced at all; and I came to the conclusion that, with no other guide but the copy-books of the pupils, I could tell whether drawing were taught in school or not.

Mr. Mann adds: "Drawing, of itself, is an expressive and beautiful language. A few strokes of the pen or pencil will often represent to the eye what no amount of words, however well chosen, can communicate. For the master architect, for the engraver, the engineer, the pattern designer, the draughtsman, moulder, machine-builder, or head mechanic of any kind, all acknowledge that this art is essential and indispensable. But there is no department of business or condition of life where the accomplishment would not be of utility."—*Self Instructor.*